Appl. No.: 10/676,828
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Reply to Office Action of December 6, 2004

LISTING OF CLAIMS

1. (Original) A method for testing the coefficient of restitution of a golf ball comprising the steps of:

positioning an impacted object in an initial stationary position in an enclosure;

constraining the impacted object to movement within a predetermined path within the enclosure;

moving an impacting object toward and impacting the impacted object, wherein one of either the impacting object or the impacted object is the golf ball;

determining the pre-impact velocity of the impacting object;

determining the post-impact velocity of the impacted object; and

determining the coefficient of restitution of the golf ball.

2. (Original) The method of claim 1, wherein the impacting object is the golf ball, and the impacted object is a simulated golf club.

3. (Original) The method of claim 1, wherein the impacting object is a simulated golf club and the impacted object is the golf ball.

4. (Original) The method of claim 1, further comprising the step of automatically returning the impacted object to the initial position.

5. (Original) A method for testing the durability of a golf ball comprising the steps of:

(a) positioning an impacted object in an initial position in an enclosure;

(b) constraining the impacted object to movement within a predetermined path within the enclosure;

(c) moving an impacting object at a predetermined velocity toward and impacting the impacted object, wherein one of either the impacting object or the impacted object is the golf ball;

(d) automatically returning the impacted object to the initial position; and

(e) repeating steps (c) and (d) until failure of the golf ball is noted.

6. (Original) The method of claim 5, wherein the impacting object is the golf ball, and the impacted object is a simulated golf club.

7. (Original) The method of claim 5, wherein the impacting object is a simulated golf club and the impacted object is the golf ball.

8. (Original) The method of claim 5, further comprising the step of providing a launching device to move the impacting object toward the impacted object.

9. (Original) The method of claim 8, wherein the impacting object comprises a plurality of golf balls and the impacted object is a simulated golf club.

10. (Original) The method of claim 5, wherein step (d) comprises the step of providing a repositioning device to return the impacted object to the initial position.

11. (Original) An apparatus for testing golf ball comprising:

an enclosure defining a predetermined path;

an impacted object positioned in an initial position within said predetermined path, wherein the movement of the impacted object after impact is constrained within the predetermined path; and

a launching device configured to launch an impacting object at a predetermined velocity to impact the impacted object, wherein one of either the impacting object or the impacted object is the golf ball.

12. (Original) The apparatus of claim 11, wherein the enclosure is connected to a dampening device adapted to retain the impacted object after impact.

13. (Original) The apparatus of claim 11, wherein the enclosure defines a plurality of perforations on its surface.

14. (Original) The apparatus of claim 11, wherein the other of either the impacting object or the impacted object is a simulated golf club.

15. (Original) The apparatus of claim 14, wherein the simulated golf club is hollow and comprises an impacted face.

16. (Original) The apparatus of claim 15, wherein the impacted face is flexible.

17. (Original) The apparatus of claim 11, wherein the enclosure further comprises a vented section.

18. (Original) The apparatus of claim 11, wherein the enclosure is connected to a repositioning device associated with the impacted object to return the impacted object to the initial position after impact.

19. (Original) The apparatus of claim 18, wherein the repositioning device is selected from a group consisting of a rod-and-piston mechanism, a rod-and-rotating wheel mechanism, a pneumatically controlled rod, a magnetic or magnetized sleeve, a spring, an energy storing device, a kinetic-to-potential energy converter, and combination thereof.

20. (Original) The apparatus of claim 11, further comprising a first sensor for determining the pre-impact velocity of the impacting object and a second sensor for determining the post-impact velocity of the impacted object.

21. (Original) The apparatus of claim 14, wherein the simulated golf club weighs between about 100 grams and about 500 grams.

22. (Original) The apparatus of claim 21, wherein the simulated golf club weighs between about 180 grams and about 250 grams.

23. (Original) The apparatus of claim 22, wherein the simulated golf club weighs about 200 grams.